

Patent claims

1. A method for controlling an air-conditioning system for a motor vehicle, having the following method steps:

- an air mass flow rate sensor (28) measures (10) the actual value of the air (26) flowing into the air-conditioning system (22), and
- means for increasing and/or decreasing the airflow are actuated (14-20), in order to adjust the actual value to a setpoint value for the entering airflow rate.

2. The method as claimed in claim 1, characterized in that the air mass flow (26) into the air-conditioning system (22) is composed of a recirculated airflow (30) and an external airflow (32).

3. The method as claimed in claim 1 or 2, characterized in that, when there is an excessively low air mass flow into the air-conditioning system (22), the recirculated airflow (30) and/or external airflow (32) are increased.

4. The method as claimed in claim 3, characterized in that a fan, which can be connected into the circuit for an increased air mass flow, is provided in an inlet duct for the external airflow (32).

5. The method as claimed in claim 3 or 4, characterized in that an adjustable flap (34), which can be adjusted in accordance with the required airflow rate, is provided in an inlet duct for the external airflow (32).

6. The method as claimed in one of claims 3 to 5, characterized in that the air mass flow to the air-conditioning system (22) is controlled independently of the speed.

7. The method as claimed in one of claims 1 to 6, characterized in that proportions of recirculated airflow (30) and external airflow (32) are set by means of a recirculation flap (34).

8. The method as claimed in one of claims 1 to 7, characterized in that characteristic variables of the inflowing air mass flow rate are measured in the air mass flow (26) to the air-conditioning system (22).

9. The method as claimed in claim 8, characterized in that the temperature and/or relative humidity in the air mass flow to the air-conditioning system are measured.

10. The method as claimed in one of claims 1 to 9, characterized in that one or more sensors (28), which each respond to a gas or a mixture of gases, are provided in the airflow (26) to the air-conditioning system (22).

11. The method as claimed in claim 10, characterized in that the sensors (28) respond to exhaust gas in the flow (26) to the air-conditioning system (22), and the proportion of external air (32) is reduced by actuating the flap (34).

12. A device for an air-conditioning system, having

- a suction element, via which one or more airflows are fed to the air-conditioning system, and
- an air mass flow rate sensor in the suction element which measures one or more airflows which

enter the air-conditioning system via the suction element.

13. The device as claimed in claim 12, characterized in that the suction element has an inflow line for recirculated air and an inflow line for external air.

14. The device as claimed in claim 13, characterized in that the suction element has a diverter flap which sets the proportions of external air and recirculated air in the suction element to the air-conditioning system.

15. The device as claimed in claim 14, characterized in that the air mass flow rate sensor is provided downstream of the diverter flap and upstream of the air-conditioning system.